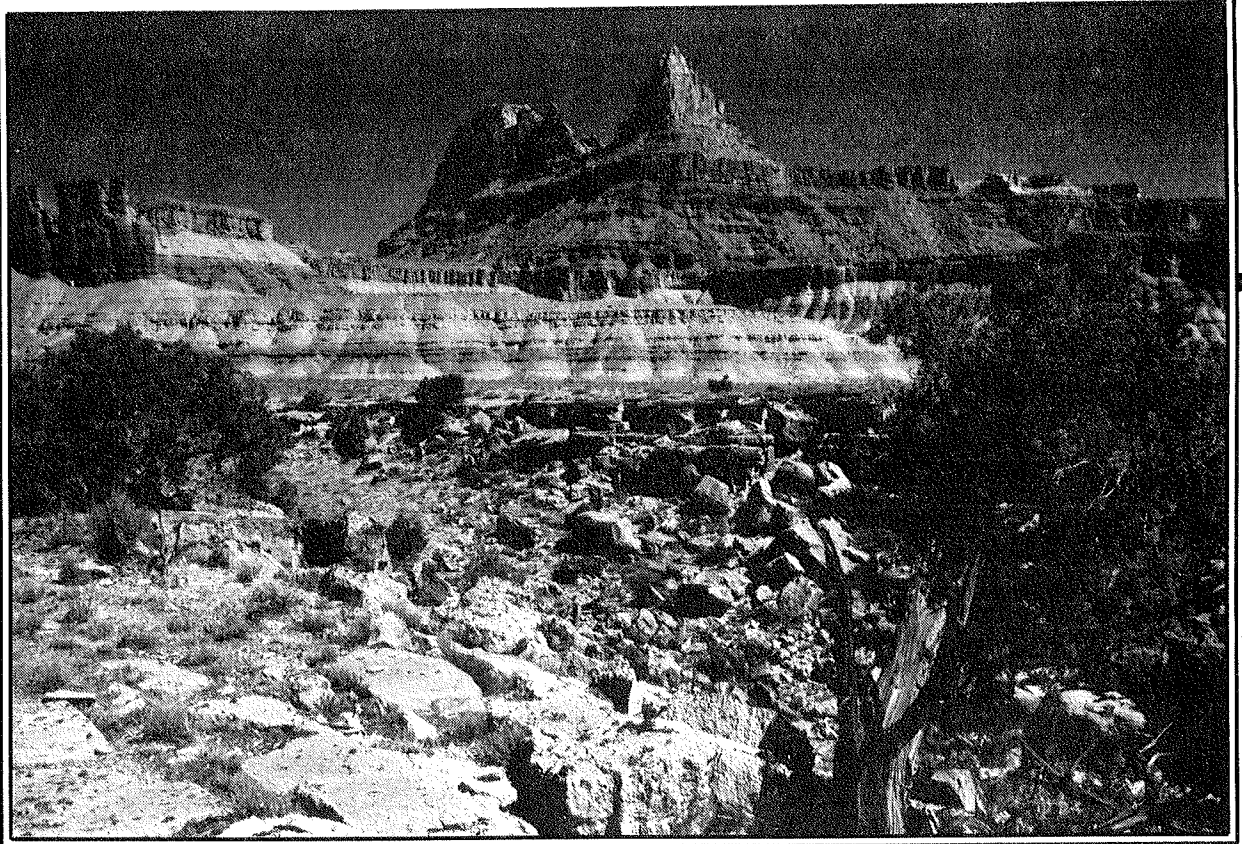


Mexican Mountain WSA



T. 27 S.



MEXICAN MOUNTAIN WILDERNESS STUDY AREA

1. THE STUDY AREA: 59,600 acres

The Mexican Mountain Wilderness Study Area (WSA) (UT-060-054) is in Emery County, about 18 miles west of Green River, Utah (population 1,048). The study area is up to 10 miles from north to south and is about 15 miles from east to west. The WSA is east of the Sids Mountain WSA (UT-060-023) and the southern edge is about 1.5 miles north of Interstate Highway 70 (I-70). Most of the boundary is along legal subdivisions, including State lands (see Map).

The San Rafael River, which flows across the WSA from the northwest corner to the southeast corner, forms the southern boundary of a cherrystem for about 3 miles. The cherrystem extends southeastward to exclude a road that nearly reaches Mexican Mountain in the southeastern portion of the WSA (see Map). The WSA contains 59,600 acres of public land administered by the Bureau of Land Management (BLM). Five State sections (2,608 acres) are inheld within the WSA, four of which (2,241 acres) are in the portion recommended for wilderness designation (see Table 1).

TABLE 1
LAND STATUS AND ACREAGE SUMMARY IN THE STUDY AREA*

WITHIN THE WSA	ACRES
BLM (surface and subsurface)	59,600
Split-Estate (BLM surface only)	0
In-holdings (State, Private)	2,608
Total	62,208
WITHIN THE RECOMMENDED WILDERNESS BOUNDARY	
BLM (within the WSA)	46,750
BLM (outside the WSA)	0
Split-Estate (within the WSA)	0
Split-Estate (outside the WSA)	0
Total BLM land recommended for wilderness	46,750
In-holdings (State, private)	2,241
WITHIN THE AREA NOT RECOMMENDED FOR WILDERNESS	
BLM	12,850
Split-Estate	0
Total BLM land not recommended for wilderness	12,850
In-holdings (State, Private)	367

Source: BLM File Data

* The Appendix is a detailed table of in-holdings included within the portion of the WSA recommended for designation.

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The WSA is characterized by features resulting from erosion of the multi-colored sedimentary rocks of the eastern San Rafael Swell, including the slopes of the San Rafael Reef on the eastern edge of the WSA: vertical cliffs, buttes, ridges, alcoves, and pinnacles. The San Rafael River has cut deeply into the limestones and sandstones in the southeastern portion of the WSA to form narrow, deep canyons known as the Upper and Lower Black Boxes. Large, isolated erosion remnants such as Mexican Mountain are distinctive in the southeastern part of the WSA. Elevations in the WSA range from 4,700 feet on the San Rafael River in the southeast, to 6,900 feet on Mexican Mountain. Almost half of the WSA is barren or has only scattered plant cover. Pinyon-juniper dominates about one-third of the WSA, with brush and grass on the remainder of the area.

The WSA was studied under Section 603 of the Federal Land Policy and Management Act (FLPMA) and was included in the Utah BLM Statewide Wilderness Environmental Impact Statement (EIS) finalized in November 1990. Three alternatives were analyzed in the EIS: a partial wilderness alternative where 46,750 acres would be designated as wilderness and the remaining 12,850 acres would be released for uses other than wilderness, which is the recommendation in this report; a no wilderness (no action) alternative; and an all wilderness alternative.

Subsequent to publication of the Utah BLM Statewide Wilderness Final EIS, the Utah State Director approved the San Rafael Resource Area Resource Management Plan (RMP). The plan includes 16,160 acres of the Mexican Mountain WSA in the San Rafael Canyon (middle and lower portions) Area of Critical Environmental Concern (ACEC) to protect scenic values. Special management requirements now in effect within the lower portion of the ACEC include closing the area to off-highway vehicle (OHV) use, management of the area to meet Class I visual resource management (VRM) guidelines, closure to oil and gas leasing, and proposed withdrawal from locatable mineral entry, where consistent with valid existing rights. Restrictions in the middle portion of the ACEC include limiting OHV use to designated roads and trails.

2. RECOMMENDATION AND RATIONALE:

- 46,750 acres
(recommended for wilderness)
- 12,850 acres
(not recommended for wilderness)

The recommendation for this WSA is to designate 46,750 acres as wilderness and to release the remaining 12,850 acres for other uses. Designation of the entire area is considered to be the environmentally preferable alternative as it would result in the least change from the natural environment over the long term. The alternative selected, however, would be implemented in a manner which would utilize all practical means to avoid or minimize adverse environmental impacts. The recommendation will further apply to any additional in-holding acreage acquired through purchase or exchange with willing owners. The Appendix lists all in-holdings and provides additional information on acquisition.

All of the portion of the WSA that is recommended for wilderness designation meets the naturalness criterion and has outstanding opportunities for solitude and primitive recreation. Special features are scenic, geologic, archaeological, historical, ecologic, and wildlife values. The Black Boxes, two incised gorges on the San Rafael River, are noted features. About 34 miles of the San Rafael River flows through the study area.

Approximately 16,160 acres of the area recommended for wilderness designation are in the San Rafael Canyon ACEC where restrictions on OHVs and mineral and energy exploration and production would continue to be administratively applied if the area is released from wilderness consideration and protection of wilderness characteristics is not a management objective.

The water of the San Rafael River is not fully appropriated. Therefore, conflict over water rights could ensue from wilderness designation. Additionally, the BLM notes that designation of the WSA could result in restrictions on future water consumptive developments on the river and its tributaries upstream of the WSA, with resultant impacts on the economy of Emery County. Because of the uncertain nature of the impacts, BLM

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recommends that a portion of the WSA be designated wilderness with special provisions for protection of potential upstream water uses.

There is high potential for moderate-sized uranium/vanadium deposits. However, these would probably be subsurface deposits that would require considerable drilling to locate and would be expensive to mine.

Some future development is possible, but similar deposits may be found elsewhere in the vicinity and the Mexican Mountain area probably would not be essential for future supplies of uranium.

Over half of the WSA is currently closed to OHV use, and use is limited to designated roads and trails on the remainder of the WSA. No conflicts exist with other land or resource uses.

The area not proposed for wilderness designation is generally accessible from or near areas used for vehicular recreation. The land adjacent to the county road in Buckhorn Draw and east to the Prickly Pear Flat area and Red Canyon (Area A) is not proposed for wilderness designation as it would be very difficult to keep OHVs out of this open area along a main road. This area has traditionally been used for vehicle camping and the BLM recommends that this use be allowed to continue.

The area south of the San Rafael Campground and east along Indian Bench to Mexican Bend (Area B) has also been used traditionally for vehicular recreation, and is not recommended for wilderness designation.

BLM recommends that the wilderness boundary in T. 20.5 S., R. 13 E., Sec. 35 be set back approximately 200 feet from the vehicle route to Mexican Bend, instead of following the section line as shown in the Final EIS in order to conform with the present alignment of the vehicle route. The map also reflects a correction to T. 21 S., R. 13 E., Sec. 36. The Final EIS map showed the southeastern corner of the section within the area recommended for wilderness. However, the entire section should be outside of the area recommended for wilderness as it is not public land. These

small changes from the Final EIS are within the margin of error of the acreage estimate for the WSA, hence the reported acreage has not been changed.

3. CRITERIA CONSIDERED IN DEVELOPING THE WILDERNESS RECOMMENDATION

Wilderness Characteristics

A. Naturalness

Naturalness is defined as an attribute in which the evidence of man is substantially unnoticeable to the average visitor and where minor imprints of man exhibit no cumulative impact that is substantially noticeable. All imprints together affect less than 3,000 acres (5 percent) of the WSA. These imprinted areas meet the naturalness criterion for areas under wilderness review since the imprints are not substantially noticeable in the WSA as a whole. The other 95 percent of the WSA also meets the naturalness criterion because it is free of imprints.

Imprints are minimal within the WSA. Two short gap fences of about 0.75 of a mile and 0.50 mile cross the river road. There are also two reservoirs along the road and two short ways, leading south toward views of the Black Box. Two short ways also reach the Black Box from the south. The one west of Lockhart Box is a 0.25 miles long. The other is a 0.5 mile loop north of Jackass Benches. From the end of the river road, extending about 4 miles around Mexican Bend, are an abandoned access way, drill site, and air strip. In 1984 about 2.5 miles of the way was bladed without authorization. After this action was discovered, the road bed was scarified and seeded. Reclamation was not fully successful but a road barrier was constructed to prevent additional vehicle use. Another way of about 0.5 mile enters the WSA to a point west of Swasey's Leap. This way is now closed to OHV use due to ACEC restrictions. West of Oil Well Draw and south of the San Rafael Campground there are concentrations of OHV tracks. There is also one small mineral prospect in Red Canyon.

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B. Solitude

Overall, about 90 percent of the WSA (53,600 acres) provides outstanding opportunities for solitude, because of the terrain, vegetation, and configuration of the study area. In approximately 6,000 acres, including the area west of Red Canyon and along segments of the river road, the opportunities for solitude are less than outstanding due to configuration and the sights and sounds of vehicles.

Vegetation complements terrain in providing screening that enhances opportunities for solitude. This occurs primarily in two tree-dominated vegetation types, pinyon-juniper woodland and riparian. The pinyon-juniper type occurs in approximately 34 percent of the WSA and contributes significantly to solitude where it is interwoven among the rocky hummocks in the northern portion of the WSA. In addition, there are several small pockets of tree dominated riparian vegetation in canyon bottoms.

The configuration of the WSA and the terrain east of Red Canyon promote opportunities for solitude. The entrenched meanders of the Black Box and its tributaries are so deep and narrow that they provide isolation from activities above. Terrain plays a similar role elsewhere in the WSA. The WSA includes about 60 miles of canyons.

By contrast, the configuration of the WSA west of Red Canyon limits opportunities for solitude, particularly when OHVs are being used in this portion of the WSA and outside its boundaries. This portion of the WSA includes two strips of land ranging from a 0.25 mile to 3 miles wide with surface features not conducive to solitude.

The only off-site influences affecting opportunities for solitude are OHV recreation and the occasional surface collection of building stone. These activities occur along the boundaries of the WSA and are concentrated around the San Rafael Campground and along the San Rafael River road. The opportunity to find a secluded spot in the immediate vicinity of these areas is limited.

C. Primitive and Unconfined Recreation

Primitive recreation opportunities for which the WSA is best suited include hiking, camping, floatboating/tubing, and sightseeing activities related to the WSA's scenic, cultural, and nongame wildlife features. Based on these activities, the entire WSA (59,600 acres) provides outstanding opportunities for primitive recreation.

Opportunities for fishing and hunting, while present, are very limited due to very small game populations and poor productivity. Horseback activities could potentially occur in the WSA, but would be confined by terrain.

D. Special Features

The natural features of the WSA primarily result from its geology. Cuestas, buttes, pinnacles, alcoves, and at least one prominent natural arch occur in the WSA. Only a few canyons in Utah can be compared to the entrenched, very narrow gorges of the Black Boxes of the San Rafael River. The combination of geologic surface features present is not found to the same extent anywhere else in the San Rafael Swell.

The oldest rock exposed in the San Rafael Swell is the White Rim or Cocoonino Sandstone, in the Black Boxes. It is exposed elsewhere in Utah, although not in a similar gorge. The hummocks in the Navajo Sandstone north of the San Rafael River are also unusual. The San Rafael Reef, which also extends through two other WSAs to the south (San Rafael Reef and Crack Canyon WSAs), is remarkable because of its steep pitches. In Mexican Mountain WSA it begins at its base with steeply dipping Carmel and Entrada sandstones cut by narrow clefts and rises to pitched Navajo Sandstone points or sandstone hummocks.

Approximately 92 percent of the WSA is rated as outstanding for scenic quality.

The ruggedness of the terrain contributes to its suitability as nesting habitat for raptors, habitat for desert bighorn sheep, and scenic interest. The San Rafael River runs through the WSA, cutting deep canyons and providing an

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important perennial water source with its riparian vegetation.

The potential exists in the WSA for unusual historical sites, given the known combination of sites and activities in the immediate vicinity of the WSA, including the Old Spanish Trail, the Old Railroad Grade, historical agriculture, and use by outlaws.

Special wildlife habitat features in the WSA include springs, the San Rafael River, riparian associations, a cliff line suitable for raptor nesting, and at least one bighorn sheep cave. The WSA has small populations of cougar and desert bighorn sheep, which are wildlife species associated with wilderness. Black-footed ferrets, peregrine falcons, and bald eagles, listed as endangered species, and nine additional animal species considered sensitive may inhabit or frequent the WSA. Two plants, Maguire Daisy (Erigeron maquirei var. maquirei) and Wright fishhook cactus (Sclerocactus wrightiae), which are listed as endangered species, occur or may occur in the WSA. Also, two threatened species, the Jones Cycladenia (Cycladenia humilis var. jonesii) and the Last Chance Townsendia (Townsendia aprica), and five other plant species that are considered sensitive may occur in or near the WSA.

Refer to Appendix 4 and the Affected Environment, Vegetation and Wildlife Including Special Status Species sections of the Utah BLM Statewide Wilderness Final EIS for additional information.

Diversity in the National Wilderness Preservation System (NWPS)

A. Expanding the Diversity of Natural Systems and Features as Represented by Ecosystems

Wilderness designation of this WSA would not add a combination of potential natural vegetation (PNV) ecosystems not presently represented in the NWPS.

PNV is the vegetative type that would eventually become climax vegetation if not altered by human interference, and is not necessarily the vegetation that is currently present in an area.

The WSA is in the Colorado Plateau Province/Ecoregion. The PNV in the WSA is juniper-pinyon woodland (35,760 acres) and saltbush-greasewood (23,840 acres).

Both types of PNV are represented in the NWPS nationally and in Utah and in other BLM study areas. This information is summarized in Table 2 from data compiled in December 1989.

TABLE 2
ECOSYSTEM REPRESENTATION

BAILEY-KUCHLER CLASSIFICATION (PNV)	NWPS AREAS		OTHER BLM STUDIES	
	AREAS	ACRES	AREAS	ACRES
NATIONWIDE (COLORADO PLATEAU PROVINCE)				
Juniper-Pinyon Woodland	11	1,401,745	84	2,108,245
Saltbush-Greasewood	1	20,000	17	370,163
UTAH (COLORADO PLATEAU PROVINCE)				
Juniper-Pinyon Woodland	1	26,000	53	1,670,438
Saltbush-Greasewood	1	20,000	17	370,163

Source: BLM File Data.

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B. Assessing the Opportunities for Solitude or Primitive Recreation within a Days Driving Time (5 Hours) of Major Population Centers

The WSA is within a 5-hour drive of the Salt Lake City-Ogden, Utah and Provo-Orem, Utah standard metropolitan statistical areas. Table 3 summarizes the number and acreage of designated wilderness and other BLM study areas within a 5-hour drive of these population centers.

C. Balancing the Geographic Distribution of Wilderness Areas

The Mexican Mountain WSA could contribute significantly to balancing the geographic distribution of wilderness areas within the NWPS. As of January 1987, the NWPS included 44 areas comprising 3,443,330 acres in Utah and in Colorado, the adjacent state nearest the WSA.

TABLE 3
WILDERNESS OPPORTUNITIES FOR RESIDENTS OF MAJOR POPULATION CENTERS

POPULATION CENTERS	NWPS AREAS		OTHER BLM STUDIES	
	AREAS	ACRES	AREAS	ACRES
Salt Lake City-Ogden, Utah	11	1,099,962	78	2,200,075
Provo-Orem, Utah	11	721,793	90	2,727,268

Source: BLM File Data.

A Mexican Mountain Wilderness would supplement the NWPS in the Canyonlands Section of the Colorado Plateau where there are just two established wilderness areas totaling 70,751 acres. There are three designated wilderness areas within 100 miles of the WSA. To the northwest is the 28,000-acre Mt. Nebo Wilderness (U.S. Forest Service [FS]) to the southeast is the 45,000-acre Dark Canyon Wilderness (FS), and to the southwest is the 25,751-acre Box-Death Hollow Wilderness (FS).

Manageability (The area must be capable of being effectively managed to preserve its wilderness character.)

The portion of the WSA that is recommended for wilderness designation can be managed as wilderness to preserve values now present in the area, and to avoid conflicts with traditional OHV access routes. Current uses such as livestock grazing and maintenance of rangeland developments would continue with little or no effect on wilderness values. A herd of about 10 to 15 head of wild horses would continue to use part of the WSA, where management actions would continue as at present.

Even though there are 1,120 acres of post-FLPMA oil and gas leases in the WSA (480 acres are in the recommended area), the leases are subject to stipulations for protection of wilderness values and it is expected that they will expire and not be renewed.

There are 1,400 acres of mining claims in the recommended portion of the WSA. Because there is some potential for uranium deposits in the WSA, it is expected that a portion of these and future claims existing at the time of designation will be explored and possibly developed. It is projected that uranium exploration and development would disturb approximately 16 acres in the recommended portion of the WSA following wilderness designation, but this would not affect the overall manageability of the area. The presence of four in-held State sections (2,241 acres) scattered through the recommended part of the study area could create additional manageability problems because BLM would be required to provide reasonable access to State land and would have no control over activities on State land. Because there is some potential for uranium in the WSA, it is projected that in the foreseeable future uranium exploration

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and development on State land could reduce wilderness values in small portions of the recommended wilderness.

About 693 acres of public water reserve withdrawals would be compatible with wilderness management and would remain in effect following wilderness designation.

The 12,850-acre area not recommended for wilderness designation also could be managed as wilderness, although it would be more difficult to do so. There are 820 acres of mining claims and one section of State land (367 acres) in this portion of the WSA where uranium exploration and development could disturb about 16 acres. In addition, OHV use would be administratively difficult to control in the area not recommended for wilderness because of ease of access and traditional vehicle use patterns. Off-site influences from vehicle use on adjacent roads would be evident in portions of the area not recommended for wilderness.

Energy and Mineral Resource Values

The U.S. Geological Survey (USGS) and the U.S. Bureau of Mines (USBM) prepared a mineral assessment report for the San Rafael Swell WSAs, including the Mexican Mountain WSA (USGS Bulletin 1752, Susan Bartsch-Winkler, et al., 1990). The report indicates that commodities that were evaluated included gypsum, geothermal energy, limestone, oil and gas, sand and gravel, sandstone, semiprecious gemstones, sulfur, petrified wood, and tar sand.

The mineral resource potential is high for localized, thin tar sands of variable grade. The resource potential for gypsum on the surface is high in the northeastern part of the WSA. The northeastern part of the Mexican Mountain WSA has high resource potential for uranium and vanadium in the Chinle Formation. The resource potential is moderate for oil and gas, geothermal energy, and for carbon dioxide and helium gases. The resource potential is low for metals other than uranium and vanadium, including gold and copper, and for minor, localized sulfur deposits. The resource potential for bentonite in the Chinle Formation on the surface and in the

subsurface is low in the northeastern part of the WSA.

Impacts on Resources

The comparative impact table (Table 4) summarizes the effects on pertinent resources for alternatives considered including designation or nondesignation of the area as wilderness.

Local Social and Economic Considerations

Over the long term, partial wilderness designation would cause a slight change in local economic conditions from those that would occur with the No Action/No Wilderness Alternative. Approximately 20 fewer jobs would be provided by locatable mineral activities with this alternative. This is equivalent to about 0.3 percent of the projected Emery County employment in the year 2010. Recreation-related expenditures could contribute up to \$142,900 annually at the end of 30 years. Livestock grazing would continue to contribute \$36,180 annually in livestock sales and \$42,786 in Federal revenues. Up to \$54,040 in Federal and State lease revenues would be foregone each year.

An unquantified but potentially significant adverse effect on the Emery County economy could result from restrictions on consumptive use of water on the San Rafael River and its tributaries upstream of the WSA.

Summary of WSA-Specific Comments

Public involvement has occurred throughout the wilderness review process. Comments received during the early stages of the EIS preparation were used to develop significant study issues and alternatives for the ultimate management of the WSA.

During formal public review of the Draft EIS, a total of 390 inputs specifically addressing this WSA were received from 1,074 commenters, including oral statements received at 17 public hearings on the EIS. Each letter or oral testimony was considered to be one input. Duplicate letters or oral statements by the same commenter were not counted as additional inputs or signatures. Each individual was credited with one signature

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or testimony regardless of the number of inputs. In general, 157 commenters supported wilderness designation for part or all of the WSA, while 475 commenters were opposed. Four hundred and forty-two commenters addressed the relative merits of the EIS but took no formal position on wilderness designation.

Those favoring wilderness commented on the wilderness values and special features in the WSA. The majority of those commenting in favor of wilderness were from urban Utah and other states. Of particular concern was the need to protect wilderness values in the WSA from OHV use.

Those opposing wilderness were concerned that wilderness would preclude mineral exploration and development and restrict livestock management and public access, wilderness is not compatible with multiple use, would harm local and State economies, and would cause Federal air quality designation in the region to become more stringent. Most of those opposing wilderness designation were from rural Utah.

One federal agency, the USBM, commented on the Draft EIS for this WSA. The USBM expressed no opinion regarding wilderness designation but stated that BLM underestimated the petroleum potential of the WSA.

No comment letters were received on the Final EIS.

There are five sections of State land (2,608 acres) within the WSA. The State of Utah expressed general opposition to wilderness designation, but did not take a definite position regarding this WSA. The State commented that the WSA ranks high for wilderness values and high for significance of conflicts compared with other WSAs in the San Rafael Region. The State noted that the major conflicts with mining and livestock uses are mostly eliminated or reduced by the Partial Wilderness Alternative; however, significant conflicts with water resource development are not reduced. The development of a dam site is irreconcilable, but the high wilderness values in the area need to be considered in the decisionmaking process. Other specific State comments on the Draft EIS dealt

with mapping mistakes, the location of tar sand, and long-term versus short-term economic potential for uranium development.

The Mexican Mountain WSA is in Emery County. The Zoning Resolution of Emery County classified the WSA as potential future mining and grazing land. The Emery County Commission is opposed to wilderness designation for the WSA and has endorsed the Consolidated Local Government Response to Wilderness that opposes wilderness designation of BLM lands in Utah. In commenting on the Draft EIS, the Commission noted that wilderness designation would be in conflict with the County Master Plan. The Commission believes that the mineral potential of the WSA is higher than described in the EIS; that the State in-holdings will compromise the manageability of the area; and that wilderness designation would lead to more restrictive air quality standards and Federal Reserved Water Rights that would devastate the economy of Emery County.

MEXICAN MOUNTAIN WSA

Table 4
Comparative Summary of Impacts by Alternative^a

Alternatives		
Issue Topic	Recommendation Partial Wilderness (46,750 Acres)	No. Action/No. Wilderness All Wilderness (59,600 Acres)
Impacts on Wilderness Values	<p>Wilderness values would be preserved overall in the designated area which is approximately 78 percent of the WSA. Naturalness and opportunities for solitude and primitive recreation would be directly lost on 34 acres because of mineral exploration and development, construction of access roads to in-held State lands, and rangeland projects. Opportunities for solitude and primitive recreation would be indirectly reduced in quality on up to 2,980 acres. Direct and indirect loss of naturalness due to OHV activity could also occur on up to 5,960 acres of the WSA. Overall, the quality of opportunities for solitude and primitive recreation would be indirectly reduced on up to a total of 8,940 acres. Some Class A scenery would be reduced in quality in disturbed and surrounding areas. Vehicular activity in the nondesignated portion including use of 10 of the 20 miles of ways in the WSA would have a negative affect on wilderness-dependent and special status species such as peregrine falcon and bighorn sheep, and on cultural values. Monitoring and enforcement of protective measures would be necessary. Wild and scenic river values would receive additional protection on 26 of the 34 miles of the San Rafael River in the WSA.</p>	<p>Wilderness values would not be protected by wilderness designation and loss would occur as intrusions increase. In the foreseeable future, naturalness and opportunities for solitude and primitive recreation would be directly lost on 80 acres because of mineral exploration and development, construction of access roads to in-held State lands, and rangeland projects. Opportunities for solitude and primitive recreation would be indirectly reduced in quality on up to an additional 5,960 acres. Although over half of the WSA would remain closed to OHV use, direct and indirect loss of wilderness values due to OHV activity could occur on up to 11,920 acres of the WSA. In total, opportunities for solitude and primitive recreation would be indirectly reduced in quality on up to 17,880 acres. Vehicular activity, including continued use of 20 miles of ways, would have a negative affect on wilderness-dependent and special status wildlife species and on cultural values. Monitoring would be necessary. Class A scenery would be reduced in quality in the disturbed and surrounding areas. The wild and scenic river values of the 34 miles of the San Rafael River in the WSA would not receive additional protection.</p>

MEXICAN MOUNTAIN WSA

Table 4 (Continued)
Comparative Summary of Impacts by Alternative

Issue Topic	Alternatives		
	Recommendation Partial Wilderness (46,750 Acres)	No Action/No Wilderness	All Wilderness (59,600 Acres)
Impacts on Vegetation	<p>Vegetation types and populations of special status plant species would be protected because projected disturbance would be reduced from 80 acres to 40 acres and OHV use would be eliminated on 83 percent of the area. Impacts from OHV use on 10,250 acres would be monitored and corrective measures taken should populations of threatened, endangered, or sensitive species be threatened.</p>	<p>Vegetation types and populations of special status plant species would not be significantly affected because the 80 acres of projected disturbance would affect 0.1 percent of the vegetation in the WSA. Impacts from OHV use on 29,000 acres would be monitored and corrective measures taken should populations of threatened, endangered, or sensitive species be jeopardized.</p>	<p>Vegetation types and populations of threatened, endangered, or other special status plant species would be protected by this alternative because projected disturbance would be reduced from 80 acres to 20 acres and OHV use would be eliminated. Appropriate inventories, clearances, and consultation with FWS would be completed prior to surface disturbance.</p>
Impacts on Water Resources	<p>Impacts and conclusions for water resources would be essentially the same as for the All Wilderness Alternative because only 34 acres of the WSA would be disturbed and 26 of the 34 miles of the San Rafael river in the WSA would be in the designated area.</p>	<p>This alternative would not alter present or future water quality or uses. Only 0.1 percent (80 acres) of the WSA would be disturbed and there would be no restrictions on water use imposed by wilderness management.</p>	<p>In the short term, wilderness designation would not significantly alter water quality or uses because only 20 acres of the WSA would be disturbed. In the long term, future water diversions and new consumptive uses in the San Rafael River system upstream of the WSA may be restricted or precluded.</p>
Impacts on Mineral and Energy Exploration and Development	<p>Impacts would be slightly less than with the All Wilderness Alternative because 22 percent of the WSA would not be designated wilderness. Oil and gas exploration and an unknown amount of uranium production would be foregone.</p>	<p>Implementation of this alternative would not adversely affect mineral and energy resource exploration and production in the Mexican Mountain WSA because mineral leasing, location of mining claims, and mineral developments would not be restricted for protection of wilderness values. In the San Rafael Canyon (lower portion) ACEC, plans of operation would continue to be required on all valid claims, no oil and gas leases would be issued, and the area would be proposed for withdrawal from locatable mineral entry.</p>	<p>Oil and gas exploration opportunities would be foregone. Wilderness designation would limit exploration and development opportunities for locatable minerals known to occur in the WSA to those under valid mining claims at the time of designation. An unknown portion of the uranium in the WSA would be foregone. No other significant locatable or leasable mineral production would be lost.</p>

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Table 4 (Continued)
Comparative Summary of Impacts by Alternative

Issue Topic	Alternatives		
	Recommendation Partial Wilderness (46,750 Acres)	No Action/No Wilderness	All Wilderness (59,600 Acres)
Impacts on Wildlife Habitat and Populations	<p>Approximately 0.6 percent (34 acres) of the habitat in the WSA would be disturbed. Wildlife habitat or populations, including special status animal species would not be significantly affected by locatable mineral and new access development. OHV use would impact big-horn sheep and raptor habitat in the nondesignated area without necessary monitoring and enforcement. Approximately 1,000 acres of peregrine and other raptor nesting habitat and 1,000 acres of bighorn sheep habitat could be affected.</p>	<p>Only about 0.1 percent (80 acres) of the wildlife habitat in the WSA would be disturbed. This would not significantly affect wildlife habitat or populations. OHV use on designated roads and trails could impact big-horn sheep and raptor habitat. The monitoring and enforcement of OHV use and enforcement of protective measures would be necessary.</p>	<p>Approximately 0.03 percent (20 acres) of the wildlife habitat in the WSA would be disturbed. Wilderness designation would protect all wildlife species and provide additional solitude over the short and long term. This would be especially beneficial to peregrine falcons on 31,700 acres of peregrine falcon nesting habitat and to desert bighorn sheep.</p>
Impacts on Livestock Management	<p>This alternative would not result in a change in the level of livestock use but would cause a change in the method of livestock management and supervision with restrictions on access to about 10 miles of way. This would cause inconvenience and increase management costs for 13 livestock permittees.</p>	<p>Existing levels of grazing use and current management practices would not be affected because access, grazing levels, and management techniques would remain as at present.</p>	<p>Restrictions on access to 20 miles of ways would necessitate changes in livestock management and supervision and cause inconvenience and increased management costs for 15 livestock permittees.</p>

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Table 4 (Continued)
Comparative Summary of Impacts by Alternative

Alternatives			
Issue Topic	Recommendation	No Action/No Wilderness	All Wilderness
	Partial Wilderness (46,750 Acres)		(59,600 Acres)
Impacts on Cultural Resources	Archaeological sites including all of the recorded sites would be protected by wilderness designation with this alternative. Sites in the nondesignated portion would continue to be protected under existing laws, but some inadvertent damage to sites from OHV use would occur.	Impacts due to surface disturbance are expected to be minimal because only 0.1 percent (80 acres) of the WSA would be disturbed and mitigation would be required. Intentional or unintentional damage to archaeological sites including two recorded sites, may occur due to continued vehicular access and OHV use. Up to 20 percent (11,920 acres) would be affected. Cultural resource management would continue without regard for protection of other wilderness values.	Very few impacts to cultural resources are expected with this alternative because potential disturbance would be reduced from 80 acres to 20 acres and OHV use would not be allowed. Overall, cultural resources would be protected but cultural resource management may be limited in scope and execution in order to preserve other wilderness values.
	Primitive recreational values would be preserved overall in the designated portion of the WSA. The quality of the primitive recreational opportunity would be directly reduced on 0.06 percent (34 acres) of the WSA and indirectly reduced on 5 percent (8,490 acres). Both primitive and motorized recreational use would increase to reach a total of as much as 34,860 visitor days per year by the year 2020. Twenty-six of the 34 miles of the San Rafael River, a wild and scenic river inventory segment on the WSA would receive additional protection.	The quality of primitive recreation would be reduced on and near OHV use areas and areas where other surface-disturbing activities occur. This could occur directly on 80 acres and indirectly on up to 30 percent (17,880 acres) of the WSA due to sights and sounds of OHV use and mineral exploration and development. Both primitive and motorized recreational use would increase by 2 to 7 percent annually over the next 30 years. Over half of the WSA would be closed to OHV use, and use would be limited to designated roads and trails on the remainder of the WSA. Thirty-four miles of the San Rafael River, a wild and scenic river inventory segment, would not receive additional protection.	Primitive recreational values would be preserved over most of the WSA. The quality of the primitive recreational opportunity would be directly reduced on 0.03 percent (20 acres) of the WSA and indirectly reduced on 2 percent (1,192 acres). Primitive recreational use would increase from the present 1,500 visitor days per year to up to 13,060 visitor days while up to 21,800 motorized visitor days per year would be foregone by the year 2020. Thirty-four miles of the San Rafael River, a wild and scenic river inventory segment, would receive additional protection.

MEXICAN MOUNTAIN WSA

Table 4 (Continued)
Comparative Summary of Impacts by Alternative

Issue Topic	Alternatives		
	Recommendation Partial Wilderness (46,750 Acres)	No Action/No Wilderness	All Wilderness (59,600 Acres)
Impacts on Economic Conditions	<p>Over the long term, partial wilderness designation would cause a slight change in local economic conditions from those that would occur with the No Action/No Wilderness Alternative. Approximately 20 fewer jobs would be provided by locatable mineral activities with this alternative. This is equivalent to about 0.3 percent of the projected Emery County employment in the year 2010. Recreation-related expenditures could contribute up to \$142,900 annually at the end of 30 years. Livestock grazing would continue to contribute \$36,180 annually in livestock sales and \$2,786 in Federal revenues. Up to \$54,040 in Federal and State lease revenues would be foregone each year. Impacts on the local economy from restrictions on consumptive water use on the San Rafael River would be the same as described for the All Wilderness Alternative.</p>	<p>Present economic conditions would not be affected. Locatable mineral activity could increase employment by 1.2 percent (80 jobs) by the year 2010. Recreation-related expenditures would contribute up to \$142,926 annually to the local economy by the year 2020. Livestock grazing would contribute \$36,180 annually in livestock sales and \$2,786 in Federal revenues. Present and future oil and gas leases could contribute up to \$77,600 annually in Federal and State lease revenues.</p>	<p>Over the long term, wilderness designation would cause a slight change in local economic conditions from those that would occur with the No Action/No Wilderness Alternative. Up to 40 fewer jobs would be provided by locatable mineral activities with this alternative. Recreation-related expenditures could contribute up to \$53,546 annually at the end of 30 years. Livestock grazing would continue to contribute \$36,180 annually in livestock sales and \$2,786 in Federal revenues. Up to \$77,600 in Federal and State lease revenues would be foregone each year. An unquantified but potentially significant adverse effect on the Emery County economy could result from restrictions on consumptive use of water on the San Rafael River and its tributaries upstream of the WSA.</p>

^a The BLM San Rafael RMP was approved following publication of the BLM Utah Statewide Wilderness EIS. The analysis of impacts summarized here has been modified to reflect the more restrictive resource management practices established by the RMP.

MEXICAN MOUNTAIN WILDERNESS STUDY AREA

Appendix
Estimated Costs of Acquisition of Non-Federal Holdings Within Areas Recommended for Designation ^a

Legal Description (Prior to any Subdivision)	Total Acreage	Number of Owners (If Parcel has been subdivided)	Type of Ownership by Estate (Federal, State, Private, Other) (Surface Estate) (Subsurface Estate)	Presently Proposed for Acquisition (Yes, No)	Preferred Method of Acquisition (Purchase, Exchange, Other)	Estimated Cost of Acquisition (Land Costs)	Estimated Cost of Acquisition (Processing Costs)
T. 20 S., R. 12 E., Sec. 36	640.00		State	No	Exchange		\$2,000
T. 20 S., R. 13 E., Sec. 16	640.00		State	No	Exchange		\$2,000
T. 20 S., R. 13 E., Sec. 32	640.00		State	No	Exchange		\$2,000
T. 20 S., R. 13 E., Sec. 32	320.68		State	No	Exchange		\$1,000

^a The estimated costs listed in this appendix in no way represent a Federal appraised value of the land or mineral estate, but are rough estimates based on sales or exchanges of lands or mineral estates with similar characteristics to those included in the WSA. The estimates are for purposes of establishing a range of potential costs to the government of acquiring non-Federal holdings and in no way represent an offer to purchase or exchange at the cost estimate included in this appendix.